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**Testimony Before the  
Senate Committee on Indian Affairs**

**Oversight Hearing on Indian Energy Development -  
Regaining Self-Determination Over Reservation Resources**

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Chairman Dorgan, Vice Chairman Murkowski and members of the Senate Committee on Indian Affairs, thank you for this opportunity to provide testimony on the energy development efforts of the Navajo Nation and on lessons that we have learned.

I am the general manager of the Diné Power Authority, also known as DPA. DPA is the Navajo Nation entity responsible for utility-scale power generation and transmission development on Navajo lands. Our mission is a reflection of the Navajo Nation's sovereignty over its land and resources. DPA is the oldest tribal energy enterprise in the US today dedicated to wholesale energy development, including fossil fuel and renewable energy. The purpose of DPA's energy projects are to benefit the Navajo people, and promote economic development on the Navajo Nation. I would like to describe a few key points about three major projects that DPA is developing, share our experiences and thoughts on problems facing tribal energy, and offer some solutions to those problems.

**DPA's first major project is the Navajo Transmission Project (NTP)**, a 469-mile high voltage transmission line connecting the generation-rich Four Corners region of the desert southwest with the growing load demand in states such as Arizona, Nevada and California. This permitted project is the only high-voltage system of its size and length that is ready for construction in the United States today. Once built, the Navajo Transmission Project will eliminate a major gap in the Southwestern high-voltage transmission grid, a long-term goal of the Federal Energy Regulatory Commission, regional utilities and consumers. The NTP serves a variety of purposes, including increased stability and reliability in the event of outages and impacts to power plants and transmission lines; relieving constraint on existing, aging transmission systems in the region, and facilitating new generation from both renewable and fossil-fuel-based sources. Navajo coal is an essential component to providing reliable baseload power that will assure that resources become available to make transmission affordable and available to regional renewable projects that on their own cannot finance significant transmission line development. This brings me to DPA's next major project.

**DPA's second major project is the Desert Rock Energy Project**, a \$3.4 billion mine-mouth, coal-fired power plant that would generate up to 1,500 MW located on the Navajo Nation in the Four Corners Area of New Mexico. Desert Rock would have the lowest

regulated emissions of any pulverized coal-fired plant in the United States. This project, which would create thousands of jobs during its four-year construction phase, 200 permanent, family-wage jobs in the power plant and another 200 well paying jobs in the adjacent Navajo Mine during its lifespan, is absolutely critical to the economic future of the Navajo Nation, one of the most impoverished areas of the United States, with 50% unemployment. The project would generate approximately \$50 million per year in the first year of operation and increase each year after that, resulting in \$1.5 billion to the Navajo treasury in its first 30 years of operation.

The major permitting processes, including the federal Environmental Impact Statement (EIS) process and the federal Clean Air Act construction permit (PSD) process are nearing completion for the Desert Rock Project. The Final EIS is expected within the next few months, but the air permit is being delayed by the US Environmental Protection Agency (EPA). The EPA deemed Desert Rock's air permit application complete four years ago in 2004, and pursuant to the Clean Air Act, the agency was required to issue a decision on the permit within 18 months. Despite significant additional studies to ensure compliance with Clean Air Act requirements, a lengthy and twice-extended public review and comment process EPA has still not issued its decision on the air permit.

Until the PSD permit has been issued, it will not be possible to complete negotiations on power purchase agreements or make progress on obtaining financing for the project. Further delay costs the Navajo Nation approximately \$5 million of desperately needed dollars every month.

**DPA's third major project is the Diné Wind Project, one of the largest wind generation systems under development in the US today.** After a nationwide search and two years of discussions with different developers, reviewing a variety of technologies and with guidance and assistance from the US Department of Energy and Sandia National Laboratories, DPA entered into detailed discussions with a short list of qualified wind developers. In 2006 DPA began a joint venture with Citizens Energy Corporation and Citizens Wind because of Citizens' strong commitment to working with Native communities, a proven track record to return significant profits from their operations back to low income citizens of Native communities, a willingness to provide a carried interest to the tribal energy enterprise for their development efforts, and a significant equity ownership opportunity (50%) offered to the tribe in the project.

After conducting significant due diligence, DPA negotiated and entered into an agreement with Citizens in July, 2006 that began a joint venture of the tribal enterprise and the non-profit energy corporation to conduct feasibility studies, negotiate project development agreements and pursue preliminary discussions with local Chapters. From 2006 through 2007, Citizens and DPA collected wind data, evaluated transmission capacity, held meetings and conducted discussions with Navajo officials and local residents. On March 12, 2008, President Joe Shirley, Jr., Vice President Ben Shelley, members of the Navajo Hopi Land Commission, DPA General Manager Steven Begay and other Navajo and DPA representatives meet at the Navajo Nation Washington Office to execute an Agreement in Principle to move forward with development.

The Diné Wind Project will provide 500 MW of wind power at full buildout, with approximately 200 MW in phase one located in the Grey Mountain area of the Navajo Nation. Phase one alone could produce revenue of over \$3-5 million per year for Navajo, with additional revenues to DPA & Nation through Project Equity Ownership. It would also create 100-200 jobs during construction and 10-20 permanent jobs, while building a Navajo skill and knowledge base through job training. A percentage of the profits would be provided for local economic development and assistance.

DPA is in active discussions with energy companies, developers and others for a variety of other projects, including solar, coal gasification, distributed generation and other technologies and applications. DPA's projects have introduced the Navajo Nation, and tribes across the country, to new ways of doing business with the non-tribal world, and these projects have generated significant interest in improving the quality of life across the Navajo Nation. But getting this far has not been easy. Tribal energy development faces a number of significant hurdles; some that are shared with non-tribal entities, and some that are more acutely felt by native communities. Some of the valuable lessons we have learned over the last decade include the following:

- **Expectations need to be set correctly.** Large scale energy projects are extremely complicated, expensive and take a long time to develop even under optimal conditions.
- **Building tribal capability takes time and money.** DPA has built up its capability to be full-fledged partners with private industry over many years.
- **These projects are capital-intensive.** Although the Navajo Nation put about \$12 million in tribal funds into the projects described above, Federal funding, tax incentives and prioritization for tribal energy projects remain critically important to their advancement and will continue to be important for such projects on tribal lands in the future.
- **It takes time to find a private industry partner willing to build on Indian lands.** This is especially difficult when tribes require, as DPA did, that the private partner be willing to push the environmental standards to a new high, and in DPA's case, be willing to add technologies that would reduce water use. DPA was fortunate to find such a partner in Sithe Global Power LLC for Desert Rock and Citizens Energy Corporation for our wind projects.

Without a doubt, the benefits from tribal energy development far outweigh the burdens of achieving a successful project, but there are ways to level the playing field so the hurdle is no higher on one side of the reservation boundary. The following are a few attainable solutions that Congress and the federal government can consider to address these issues:

**Addressing Carbon Emissions While Providing Reliable Baseload Power.** Because approximately 50% of electricity generated in the US today comes from coal, coal-fired generation must confront the challenge of reducing carbon emissions and their impact on global warming. New coal plants are meeting this challenge through high-efficiency combustion, smart emission reduction technology and forward-thinking design which

allows for carbon capture and sequestration (CCS). Desert Rock's ultra supercritical boiler design and resulting combustion efficiencies will reduce carbon emission over typical coal plants by approximately 20%. In addition, proven, existing emission control technologies are combined to maximize reduction of pollutants, including a plant design with dedicated space for future emission control expansion and addition of CCS technologies. Notably, the Desert Rock site is unusually well suited for testing large-scale carbon capture and sequestration technologies:

- Approximately one mile below Desert Rock are two thick saline aquifers, which can hold carbon as carbonic acid, capped by a 1,000' shale layer, and separated by a limestone layer.
- Two studies confirm the feasibility of this formation as a primary target for CO<sub>2</sub> capture.
- There are several suitable depleted oil and gas domes for CO<sub>2</sub> storage available within 7-51 miles from Desert Rock.
- There are also several CO<sub>2</sub> pipelines that pass within relatively close proximity to the plant site, allowing for sale of CO<sub>2</sub> for enhanced oil and gas recovery.

However, for any major CCS project to go forward at Desert Rock, or anywhere in the country, there are several significant challenges that must be addressed related to cost, equipment guarantees, liability and permitting. Only the Federal government is in a position to address these issues. DPA has consulted academic institutions, government agencies, government funded laboratories, private engineering firms, financial analysts, lenders, investors and technology vendors to discuss what efforts are needed to make CCS viable on large-scale power plants. A strong consensus among these and other key players that federal incentives such as transferable tax credits and CSS pilot projects on new, high-efficiency coal plants present some of the best opportunities in the US to address carbon issues and still provide high quality, reliable, and affordable baseload energy from coal-fired power plants to consumers in the short term. Desert Rock is uniquely positioned to be a "First Mover" on such a major CCS demonstration project. The addition of CCS to the new generation of clean coal plants that is represented by Desert Rock stands to bring the highest return on this "environmental investment" as opposed to retrofitting older, less efficient coal plants.

**Overcoming Financing and Investment Obstacles.** Historically, significant obstacles to obtaining financing and attracting investment in tribal energy projects have included the sufficiency of collateral (especially since most tribal lands in the 48 contiguous states are in trust status and only the mortgage interest on a lease of trust lands is usable as collateral), the problem of dual taxation (overlapping state and tribal taxes), attracting investors with tax credit appetite, delay and cost in obtaining federal permits and approvals, and the constant challenge of remaining competitive with non-tribal projects in securing long-term power purchase agreements in the face of more complicated and lengthy transaction and development periods. While DPA has negotiated innovative and low-risk business models in its current project agreements that will help facilitate investment, project finance and maximize tribal equity positions, the time and cost involved in reaching these agreements has been significant. For tribal projects to

succeed, the time needed to obtain permits and the development costs must be comparable to non-tribal projects.

In addition to the two suggestions above, I urge this Committee and Congress to also consider the following:

- **Consistent with the Federal trust responsibility, Federal agencies can do more to help.** DPA has been frustrated with the delay at the EPA in issuing an air permit for Desert Rock. We consider the delay to be unacceptable on the merits and in violation of the trust responsibility between the federal government and Indian nations. All Federal agencies should acknowledge their trust responsibility to tribes and should dedicate the necessary resources to ensure that delays in the Federal portion of the development process do not retard overall project development.
- **The Congress can support tribal efforts with more aggressive economic and tax-related legislation.** For instance, Congress should renew, on a long-term basis, the accelerated depreciation credit for businesses locating on Indian reservations, as well as the Indian worker tax credit. These provisions were part of the package of incentives DPA used to attract large scale capital investment to the Navajo Nation, but are set to retire at the end of this year. Congress should also pass legislation to make it easy for tribe's to transfer any tax benefits they may receive for energy production, but cannot use because of their tax status, to their private partners (e.g., H.R. 1954).
- **Congress needs to more aggressively finance carbon capture and sequestration demonstration projects.** These projects are essential to demonstrate that it is possible to capture carbon emissions from coal-fired power plants, thereby assuring the viability of America's cheapest and most abundant source of energy. Desert Rock is perfectly situated to be one of these projects and is something that the project developers would be very interested in pursuing.
- **Congress needs to provide priority transmission access to tribal energy projects.** Consistent with the outcome of the federal right-of-way studies undertaken pursuant to the 2005 Energy Policy Act, Congress should take the next step and provide incentives for tribes to gain priority access to high-voltage transmission systems for tribal energy projects, and in certain cases, support the development of new transmission projects on tribal trust lands. A number of mechanisms could be employed to achieve this objective, with the result of increasing the domestic energy supply, improving tribal economies and strengthening our national transmission system.
- **Congress should create and expand preference contracts for purchase of tribal energy.** Federal agencies, in particular defense agencies and others with large energy demands, need a steady supply of low cost, high-quality reliable power. Tribal energy projects can meet that demand. A "tribal renewable portfolio standard" for these agencies, and for other recipients of significant federal assistance, would help build domestic energy capacity and give tribal energy projects greater access to long-term power purchase contracts. We ask

Congress to begin a national discussion with federally recognized tribes to explore how tribes can meet the energy needs of the federal government.

**Conclusion.** After a total investment of nearly \$30 million, DPA and its private partners are close to commencing construction on nearly \$4 billion worth of energy development projects. However, Federal support and involvement remains vitally important and has only been partially forthcoming. I hope these comments are useful to the Committee in understanding the real-life issues tribes must face in developing significant energy projects. Thank you, again, for this opportunity to testify.